

Pre-Appeal Brief Request for Review



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of:

Confirmation No.: 1007

Jun Kawaguchi, et al.

Serial No.: 09/914,701

Group Art Unit: 1742

Filing Date: August 31, 2001

Examiner: Lois L. Zheng

For: **Nonsludging Zinc Phosphating Composition And Process**

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW


Applicants request review of the final rejections in the above-identified application.

No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reasons stated on the attached sheets. As directed, no more than five (5) pages of remarks are provided.

Date: September 15, 2005



Joseph Milowic III
Registration No. 52,034

John W. Caldwell
Registration No. 28,937

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439

REMARKS

Applicants request review of the final rejections in the above-identified application.

The Examiner set forth the following obviousness rejections:

- Claims 1, 6-10, 13, 15-17, 19-20 and 22-25 stand rejected under 35 U.S.C. §103(a) ("§103(a)") over International Application WO 98/09006 to Bjerrum, *et al.* ("the WO'006 reference");
- Claims 1, 6, 8, 16, 19 and 22-25 stand rejected under §103(a) over U.S. Pat. No. 5,645,706 to Matsuda ("the Matsuda reference");
- Dependent claims 11, 18 and 21 stand rejected under §103(a) over:
 - a combination of the WO'006 reference, U.S. Pat. No. 4,517,030 to Yamamoto *et al.* ("the Yamamoto reference"), and U.S. Pat. No. 5,152,849 to Bittner ("the Bittner reference"); and
 - a combination of the Matsuda reference in view of the Yamamoto reference and the Bittner reference.

However, these rejections fail to demonstrate the obviousness of the presently claimed invention.

As stated in the Applicants' specification, the presently claimed invention relates to a nonsludging zinc phosphate treatment liquid composition, used for the formation of zinc phosphate coatings on metal surfaces. The term "nonsludging" highlights the fact that previous zinc phosphate coating processes and compositions produced "sludge" (an insoluble mixture composed mainly of zinc phosphate and/or iron phosphate) as an industrial waste byproduct. The sludge has to be removed and disposed of, which complicates manufacture and increases its expense. As a result, reduction of sludging is an important goal in the industry.

The cited references teach very broad ranges for components in zinc phosphate treatment liquid compositions, **but they do not teach that the compositions are nonsludging**. Indeed, the WO'006 reference does not even mention the problem of sludging much less solve the problem. Likewise, the Matsuda reference, as admitted by the Examiner, far from providing motivation or a suggestion to select a species of nonsludging compositions, accepts the presence of sludge in the compositions as a given that requires "removing the sludge" during the phosphating treatment. *See* Office Action of October 18,

2004, page 5 ("Matsuda discloses a phosphate ... treatment ... and at the same time, removing the sludge.").

Applicants have discovered that by controlling the relationship between the zinc concentration and the concentrations of phosphoric acid, nitric acid, cations, and anions in a zinc phosphate treatment liquid composition, they can obtain compositions having the benefit of being nonsludging. *See* Applicants' response to the October 18 Office Action, pages 10-11 and Applicants' Summary of the Invention. As it turns out, because of the number of variables and their changeability (depending upon their respective concentrations), the relationship is quite complex and is best demonstrated by the claimed mathematical condition(s).

The present application has three independent claims, to wit, 1, 24, and 25, and each of these claims recites a mathematical condition that helps describe a nonsludging composition. Contrary to the Examiner's position, *see* Office Action of May 18, 2005, page 4, Applicants not are attempting to patent an algorithm. Applicants have merely carefully spelled out the complicated relationship between the zinc concentration and the concentrations of phosphoric acid, nitric acid, cations, and anions in the claimed composition. Merely reciting ranges for components would be fruitless, because **the key to achieving nonsludging is the relationship between the components, not their individual concentrations.** Thus, an equation (mathematical condition) is useful to show the relationship between the components.

The Examiner does not appear to have identified any specific concentrations that would satisfy the mathematical condition. The references merely disclose *very* broad ranges of components of compositions that, through improper picking and choosing, could include species that theoretically would be nonsludging. Applicants say "theoretically" because, despite the references' broad ranges of components, none of the Examples in the references satisfy the Applicants' claim limitations.

Because the references disclose very broad ranges of components, the MPEP points to an analysis of genus/species law:

If a reference's disclosed range is so broad as to encompass a very large number of possible distinct compositions, this might present a situation analogous to the obviousness of a species when the prior art broadly discloses a genus.

MPEP § 2144.05. Assuming *arguendo* that a claimed species of composition is encompassed by a prior art's genus, that fact is *not sufficient by itself* to establish a *prima facie* case of obviousness. Thus, the Examiner's statement that "the *broadest* concentration ranges disclosed by the WO'006 or Matsuda . . . encompass the claimed concentration ranges" is insufficient by itself. The MPEP requires that the Examiner put forth a suggestion or motivation to select the claimed species.¹ The Examiner failed to do so.

Applicants submit that a proper suggestion or motivation is not present in the references. As discussed above, the references fail to teach or suggest that there even could be nonsludging zinc phosphate treatment liquid compositions. Matsuda approaches sludge as an expected result that, as a matter of course, requires disposal. That having no sludge would be beneficial does *not* supply the suggestion or motivation of how to solve the problem, which is what Applicants' have done through extensive research. Moreover, as mentioned above, an important factor regarding nonsludging is the relationship between the components, not just their individual concentrations. The references fail to disclose, teach, or suggest the interdependency of the component concentrations. In summary, the Office has not established a *prima facie* case of obviousness.

Finally, Applicants have sufficiently rebutted any presumption of obviousness, where there was a long felt need that Applicants solved. First, the cited primary references fail to teach or suggest compositions that are nonsludging or even suggest nonsludging as a possibility. By accepting sludging as a given, the cited references are more likely to *teach*

¹ "To establish a *prima facie* case of obviousness in a genus-species chemical composition situation, as in any other 35 U.S.C. §103 case, it is essential that Office personnel find some motivation or suggestion to make the claimed invention in light of the prior art teachings." MPEP 2144.08


away from Applicants' claims than towards them. Second, none of the examples in the cited primary references satisfies the limitations of any of Applicants' independent claims 1, 24, or 25. (See May 18 Office Action at page 4). One skilled in the art relying on the cited primary references, at the time the invention was made, could not have arrived at the claimed invention where there was no suggestion of how to modify the broad reference teachings to achieve the relationship between the components that resulted in Applicants' non-sludging compositions.

The dependent claims depend from and further limit independent claims that distinguish over the WO'006 and Matsuda references, and therefore distinguish over them as well.

Accordingly, the Office should withdraw its rejections.

Respectfully submitted,

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Joseph Milowic III
Registration No. 52,034

John W. Caldwell
Registration No. 28,937

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
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